

STATEMENT OF THE CLAIMS

1 - 2 (cancelled)

3. (currently amended) A method of handling material comprising:

packaging material into elongate bags;  
automatically arranging the elongate bags into groups, wherein at least one group has a cross-stacked configuration wherein a first set of bags are disposed side-by-side along their lengths and at least one additional bag is disposed orthogonal to and adjacent said first set of bags; and

automatically lifting and transporting said groups of elongate bags, group by group, to form a multi-row stack of elongate bags, said lifting and transporting accomplished by applying opposed clamping forces to at least one group having a cross-stacked configuration while preventing elongate bags disposed side-by-side in said cross-stacked configuration from sliding past one another, said opposed clamping forces being sufficient to lift the at least one group.

4. (original) A method according to claim 3, further comprising:

lifting and transporting the multi-row stack of elongate bags for transport to a customer.

5. (original) A method according to claim 3, wherein:

the material comprises loose-fill thermal insulation product.

6. (original) A method according to claim 5, wherein:

said loose-fill thermal insulation product comprises glass-fiber material.

7. (original) A method according to claim 5, wherein:

said loose-fill thermal insulation product comprises cellulose material.

8. (original) A method according to claim 5, wherein:

said elongate bags each have dimensions of about 38" by 21" by 8.5" and carry about 27 lbs. of product.

9. (original) A method according to claim 3, wherein:

said elongate bags comprise a polymer.

10. (original) A method according to claim 3, wherein:

wherein each group of elongate bags is transported by a conveyor assembly.

11. (original) A method according to claim 3, wherein:

said cross-stacked configuration comprises two bags disposed side-by-side along their lengths and one additional bag disposed orthogonal to and adjacent the two bags.

12. (previously presented) A method according to claim 3, wherein:

said automatic lifting and transporting said groups of elongate bags is carried out by a stacker machine having a moveable stacker head with fingers that apply opposed clamping forces to grip a given group of elongate bags and at least one support structure that is operably disposed between bags disposed side-by-side in said cross-stacked configuration to prevent such bags from sliding past one another.

13. (original) A method according to claim 12, wherein:

said support structure comprises at least one chain.

14. (previously presented) A method according to claim 12, wherein:

said support structure comprises one of wire strands and rope strands.

15. (previously presented) A method according to claim 4, wherein:

said lifting and transporting of said multi-row stack is carried out by a lift truck having two clamp members that translate relative to one another to apply opposed clamping forces for grasping and lifting a group of elongate bags positioned therebetween, and a central support bar laterally disposed between said two clamp members for preventing elongate bags disposed side-by-side in said cross-stacked configuration from sliding past one another.

16. (original) A method according to claim 15, wherein:

said central support bar fits into a slot in a conveyor belt system to facilitate positioning the two clamps members around a group of elongate bags.

17. (previously presented) A material handling system material comprising:

means for packaging material into elongate bags;

means for automatically arranging the elongate bags into groups, wherein at least one group has a cross-stacked configuration wherein a first set of bags are disposed side-by-side along their lengths and at least one additional bag is disposed orthogonal to and adjacent said first set of bags; and

means for automatically lifting and transporting said groups of elongate bags, group by group, to form a multi-row stack of elongate bags, including means for applying opposed clamping forces to at least one group having a cross-stacked configuration while preventing elongate bags disposed side-by-side in said cross-stacked configuration from sliding past one another, said opposed clamping forces being sufficient to lift the at least one group.

18. (original) A material handling system according to claim 17, wherein:

the material comprises loose-fill thermal insulation product.

19. (original) A material handling system according to claim 18, wherein:

said loose-fill thermal insulation product comprises glass-fiber material.

20. (original) A material handling system according to claim 18, wherein:

said loose-fill thermal insulation product comprises cellulose material.

21. (original) A material handling system according to claim 18, wherein:

said elongate bags each have dimensions of about 38" by 21" by 8.5" and carry about 27 lbs. of product.

22. (original) A material handling system according to claim 17, wherein:

said elongate bags comprise a polymer.

23. (original) A material handling system according to claim 17, wherein:

wherein each group of elongate bags is transported by a conveyor assembly.

24. (original) A material handling system according to claim 17, wherein:

each group comprises two bags disposed side-by-side along their lengths and one additional bag disposed orthogonal to and adjacent the two bags.

25. (previously presented) A material handling system according to claim 17, wherein:

said means for automatically lifting and transporting said groups of elongate bags comprises a stacker machine having a moveable stacker head with fingers that apply opposing clamping forces to grip a given group of elongate bags and at least one support structure that is operably disposed between bags disposed side-by-side in said cross-stacked configuration to prevent such bags from sliding past one another.

26. (original) A material handling system according to claim 25, wherein:

said support structure comprises at least one chain.

27. (previously presented) A material handling system according to claim 25, wherein:

said support structure comprises one of wire strands and rope strands.

28. (previously presented) A material handling system according to claim 17, wherein:

said means for automatically lifting and transporting said groups of elongate bags comprises a lift truck having two clamp members that translate relative to one another to apply opposed clamping forces for grasping and lifting a group of elongate bags positioned therebetween, and a central support bar laterally disposed between said two clamp members for preventing elongate bags disposed side-by-side in said cross-stacked configuration from sliding past one another.

29. (original) A material handling system according to claim 28, further comprising:

a conveyor belt system having a slot adapted to receive said central support bar to thereby facilitate positioning the two clamps members around a group of elongate bags supported by said conveyor belt system.

30 - 35 (cancelled)

36. (new) A method according to claim 3, wherein:

said multi-row stack of elongate bags has a bottom row with a cross-stacked configuration.

37. (new) A material handling system according to claim 17, wherein:

said multi-row stack of elongate bags has a bottom row with a cross-stacked configuration.